Chapter 1: Summary
Tigard Transportation System Plan

Master Plan for the next 20 years

CITY OF TIGARD

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What is a TSP?

- **Blue print for Transportation Investment**
- **Enables City to make prudent and effective choices regarding land use**
- **Coordination tool with regional and nearby agencies**
- **Fulfills State mandate (Goal 12) & RTP**
- **Addresses Existing and Future needs**

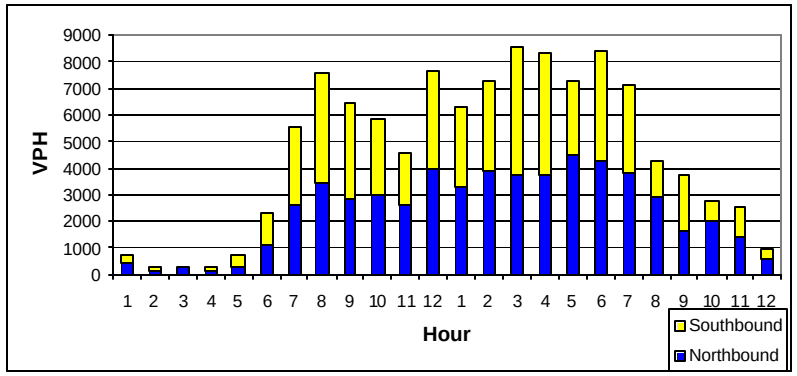
Why do a plan now?

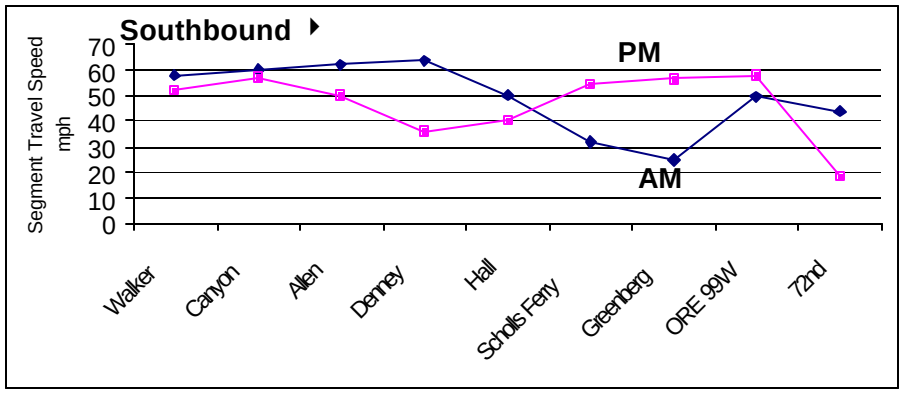
- **To get ready for the future - Now**
- **Growth**
  - Forecasts call for 6,000 more Dwelling Units and 15,000 more employees in the next 20 years
- **Metro RTP completed in 2000**
- **State Requirements (new highway plan)**
- **New Funding Opportunities**

Report Organization

- **Existing Conditions and Forecasting**
- **Policy**
- **Future Demand**
- **Modal Chapters**
  - Pedestrians, Bicycles, Transit, Motor Vehicles
  - Transportation Demand Management, Rail, Freight
- **Funding**

Existing Conditions





- City generates 35,000 PM hour vehicle trips
- ORE 99W and Scholls Ferry ~ 50,000 /day
- Much through traffic in Tigard
- It takes 5-20 minutes to get across Tigard
- Scholls Ferry has the highest collision rating
- 22 intersections near/at capacity in PM peak

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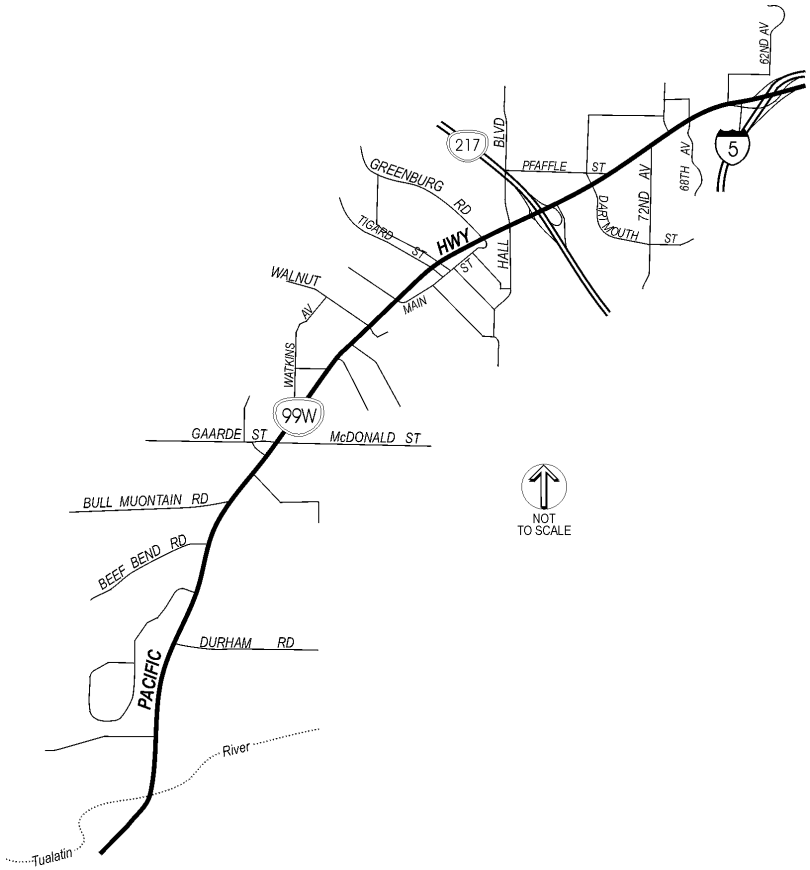
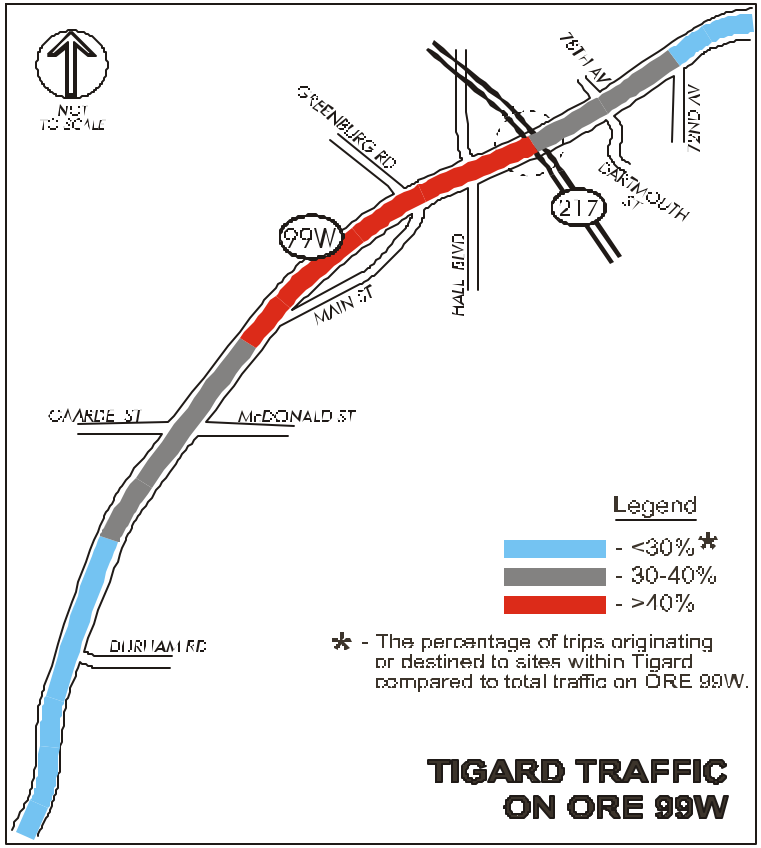
Existing Conditions

- **Key bottlenecks today:**
  - ORE 99W/McDonald
  - ORE 99W/Hall-Greenburg
  - Hall/McDonald
  - Scholls Ferry/Nimbus
  - Scholls Ferry/Hall
  - I-5/Carman Interchange



Where Does Traffic on ORE 99W Go?



- **Throughout Tigard, ORE 99W carries about half Tigard traffic, half through traffic**
- **I-5 to ORE 217 linkage is significant**
- **No alternative route for corridor travel**

Existing Pedestrian/Bicycles

- **Bicycles**
  - No continuous network in Tigard
  - Peak bicycle volume in the 10 to 15 per hour range
  - Most bicycle lanes have been added in last 10 years
- **Pedestrian**
  - Significant gaps in sidewalk system
  - Few interconnected locations linking to schools, retail, parks, transit
  - Peak hour pedestrian volumes heaviest along ORE 99W
  - Most peak hour pedestrain volumes below 50 per hour

Existing Transit

- **Significant bus service in Tigard**
- **9,500 daily bus Tigard bus trips**
- **Transit Centers are most active transit stops in Tigard**
- **Western Tigard and north of Durham area only areas without quarter mile access to buses**

TSP Task Force

- **Planning Commission**
- **Business/Chamber**
- **Bicycle/Transit involvement**
- **Technical Advisory Committee with local jurisdictions**

Transportation Goals

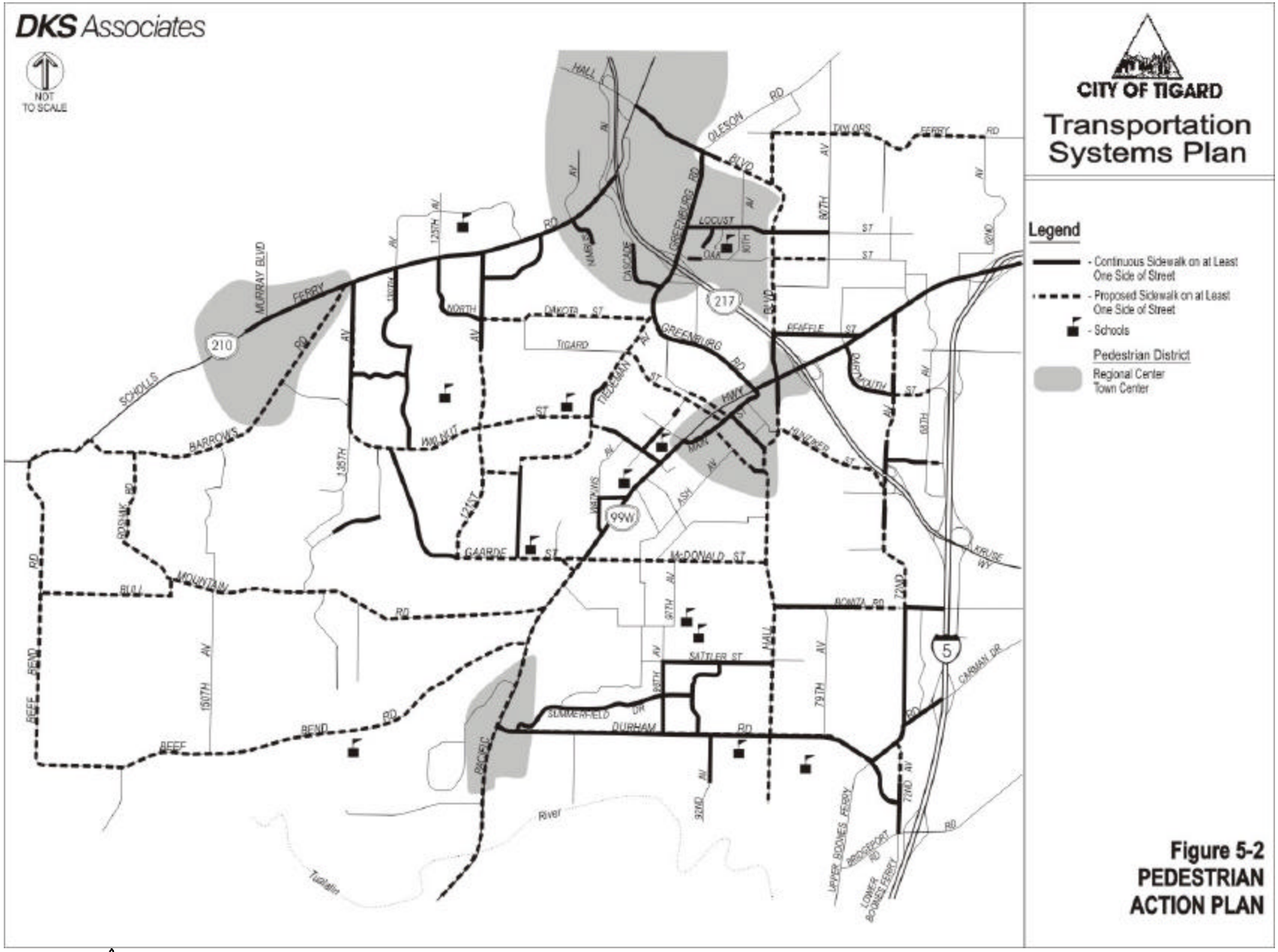
- **Livability**
- **Balanced Transportation System**
- **Safety**
- **Performance**
- **Accessibility**
- **Goods Movement**
- **Coordination**

Future Travel Forecast

- **Based upon regional travel modeling**
  - Assessed both 2015 and 2020 forecasts
- **Disaggregated Tigard into nearly 200 Transportation Analysis Zones**
- **Looked at build out condition in Tigard**
- **Established a modified 2015 forecast that resulted in 8% greater vehicle trip generation in Tigard than 2020**

Pedestrian Plan

- **Top Strategies**
  - Fill in gaps in network
  - Link to schools, parks, recreation, activity centers, transit
- **Establish Pedestrian Districts**
  - Regional Center
  - Town Centers
- **Minimum five feet**
- **Complimenting Land Use Actions**



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Tigard
Transportation System Plan

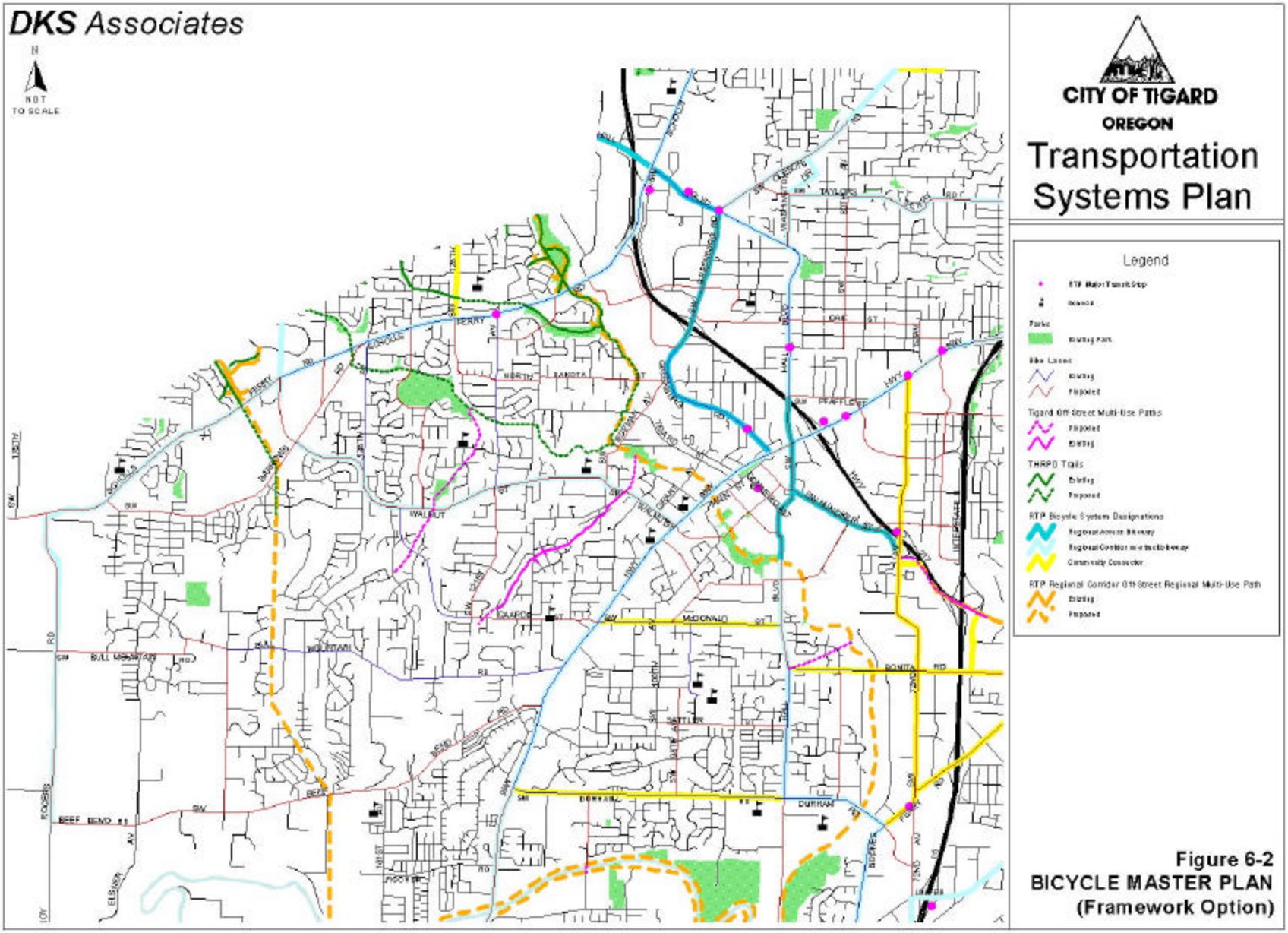
DKS *Associates*

Pedestrian Action Plan Project List

Rank*	Project	From	To	Cost
H	North Dakota Street	121st Avenue	Greenburg Road	$230,000
H	McDonald Street	ORE 99W	Hall Boulevard	$200,000
H	Tiedeman Avenue	Walnut Street	Greenburg Road	$350,000
H	Oak Street (RTP 6019)	Hall Boulevard	80th Avenue	$500,000
H	ORE 99W	McDonald Street	South City Limits	$500,000
M	Bull Mountain Road	ORE 99W	Beef Bend Road	$1,200,000
M	Roshak Road	Bull Mountain Road	Scholls Ferry Road	$300,000
M	121st Avenue	Gaarde Street	North Dakota Street	$450,000
M	Hunziker Street	Hall Boulevard	72nd Avenue	$250,000
M	Washington Square Regional Center	Pedestrian Improvements (RTP 6022)		$6,000,000
L	Taylor's Ferry Rd	Washington Drive	62nd Avenue	$1,000,000
L	Washington Drive	Hall Boulevard	Taylor's Ferry Road	$200,000
			Subtotal	**$11,800,000**
Sidewalks to be built with Street Improvements				
H	Bonita Road	West of 72nd Avenue	72nd Avenue	$50,000
H	Walnut Street	135th Avenue	Tiedeman Avenue	$570,000
H	Gaarde Street	Walnut Street	ORE 99W	$620,000
H	Hall Boulevard	Scholls Ferry Road	Pfaffle Street	$1,000,000
H	Dartmouth Street	72nd	68th Avenue	$120,000
H	Tigard Street	115th Street	Main Street	$350,000
H	Burnham Street	Main Street	Hall Boulevard	$100,000
H	Fonner Street	walnut Street	121st Avenue	$250,000
H	Commercial Street	Main Street	Lincoln Street	$50,000
M	72nd Avenue	ORE 99W	Bonita Road	$1,200,000
M	Hall Boulevard	North of Hunziker Street	South City Limits	$670,000
M	Beef Bend Road	ORE 99W	Scholls Ferry Road	$1,000,000
M	Barrows Road	Scholls Ferry Road (W)	Scholls Ferry Road (E)	$950,000
L	72nd Avenue	Carman/Upper BoonesFry.	Durham Road	$250,000
			Subtotal	**$7,180,000**
	Annual Sidewalk Program at $50,000 per year for 20 years			**$1,000,000**
			Action Plan Total	**$19,360,000**

Bicycle Plan

- **Key Strategies**
  - Fill in gaps in bicycle network
  - Connect to key activity centers, schools, parks
- **Coordinated with adjacent jurisdictions**
- **Selected Framework Alternative**
- **Major Trails:**
  - Loop Fanno/Tualatin/Power
  - Tualatin River Crossing
  - Link to I-5/ORE 217 overcrossing


DKS Associates
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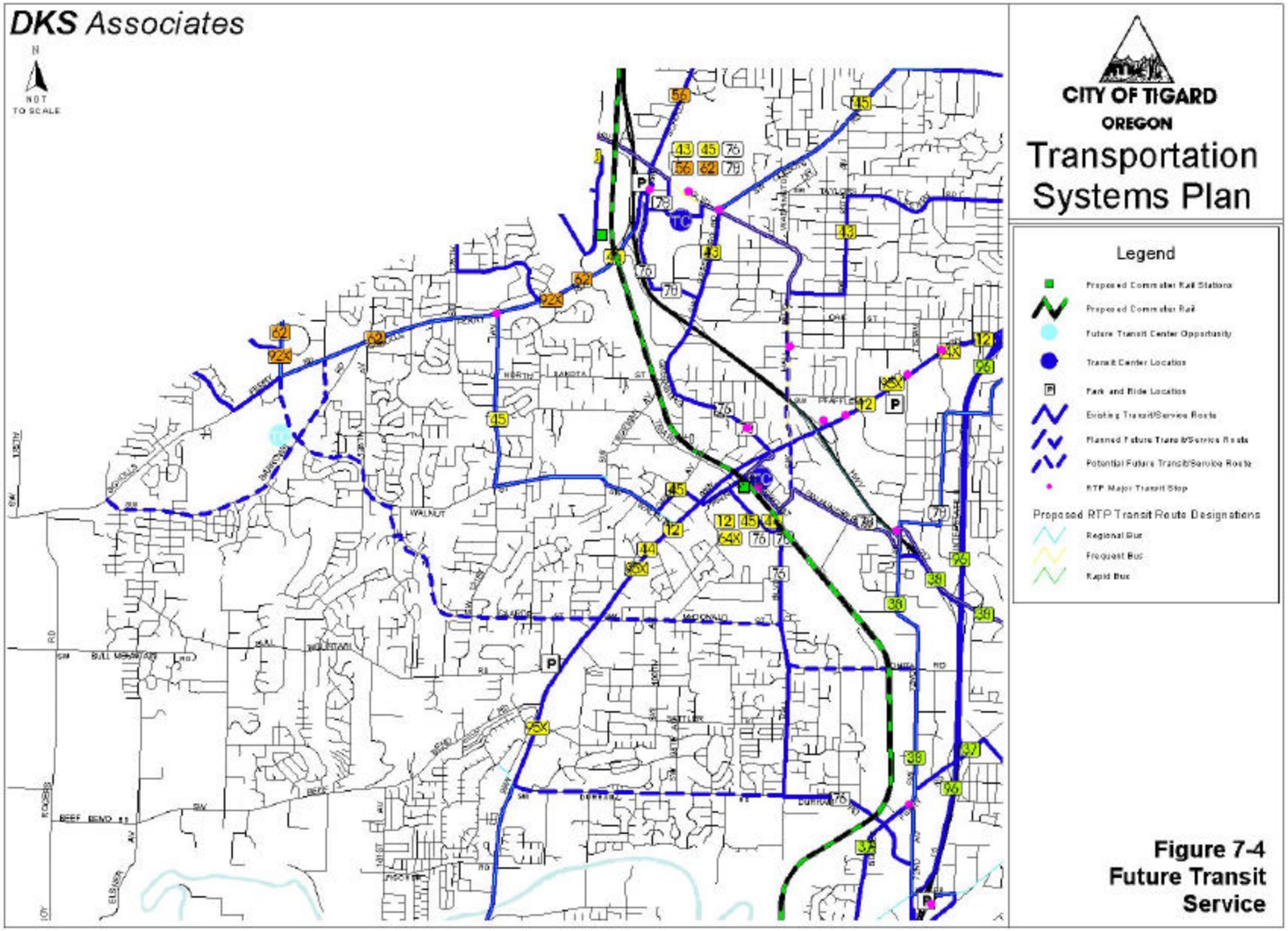
CITY OF TIGARD
OREGON
Transportation Systems Plan
Legend
Parks
Bike Lanes
Existing
Proposed
Tigard Off-Street Multi-Use Paths
Proposed
Existing
THRPD Trails
Existing
Proposed
RTP Bicycle System Designations
Regional Corridor On-street Bikeway
Community Connector
RTP Regional Corridor Off-Street Regional Multi-Use Path
Existing
Proposed
Figure 6-2
BICYCLE MASTER PLAN
(Framework Option)

Bicycle Action Plan Improvement List and Cost

RANK*	Project	From	To	Cost
H	Hunziker Street	Hall Boulevard	72nd Avenue	$250,000
H	Bonita Road	72nd Avenue	West of 72nd Ave.	$50,000
H	Burnham Street	Main Street	Hall Boulevard	$135,000
H	Oak Street (RTP 6019)	Hall Boulevard	90th Avenue	$300,000
H	98th Avenue	Murdock Stret	Durham Road	$275,000
H	92nd Avenue	Durham Road	Cook Park	$270,000
H	Tiedeman Avenue	Greenburg Road	Walnut Street	$250,000
M	121st Avenue	Walnut Street	Gaarde Street	$400,000
L	Taylor's Ferry Road	Washington Drive	City Limits	$500,000
L	Washington Drive	Hall Boulevard	Taylor's Ferry Rd	$100,000
L	O'Mara Street	McDonald Street	Hall Boulevard	$275,000
L	Frewing Street	ORE 99W	O'Mara Street	$150,000
			Subtotal	**$2,955,000**
H	Gaarde Street	Walnut Street	ORE 99W	$600,000
H	Hall Boulevard	Scholls Ferry Road	Locust Street	$500,000
H	Greenburg Road	Hall Boulevard	Cascade Avenue	$300,000
H	ORE 99W	East City Limits	South City Limits	$1,300,000
M	72nd Avenue	ORE 99W	South City Limits	$960,000
M	Hall Boulevard	Pfaffle Street	Bonita Road	$550,000
M	Carman Drive	I-5	Durham Road	$200,000
M	Walnut Street	ORE 99W	Barrows Road	$1,400,000
M	Barrows Road	Scholls Ferry Road (W)	Scholls Ferry Rd. (E)	$900,000
L	Bull Mountain Road	150th Avenue	Beef Bend Road	$550,000
L	Beef Bend Road	ORE 99W	Scholls FerryRd.	$1,600,000
			Subtotal	**$8,860,000**
Multi- Use Pathways				
H	Hunziker Link to LO	Linkage to Kruse Way Trail in Lake Oswego		$500,000
M	Fanno Creek Trail	Tualatin River to City Hall, ORE 99W to Tigard		$3,600,000
M	Tualatin River Trail	Adjacent to Cook Park from Powerlines to Fanno		$2,600,000
M	Tualatin River Crossing	Near 108th Avenue		$3,000,000
L	Powerlines Corridor	From Beaverton to Tualatin River Trail		$2,500,000
			Subtotal	**$12,200,000**
		Action Plan Total		**$24,015,000**

Transit Plan

- **Key Strategies**
  - Commuter Rail
  - Provide more frequent service, more hours of day
  - Express routes
  - Circulator Service in Tigard
  - Transit Amenities
- **New Transit Center at Murray/Scholls**
- **New Service Coverage: Durham/Gaarde/Barrows/Bonita/Hall**
- **Complimentary Land Use Actions**
  - Transit Center/Rail Station Development


DKS Associates
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CITY OF TIGARD
OREGON
Transportation Systems Plan
Legend
Proposed Commuter Rail Stations
Proposed Commuter Rail
Future Transit Center Opportunity
Transit Center Location
Park and Ride Location
Existing Transit/Service Route
Planned Future Transit/Service Route
Potential Future Transit/Service Route
RTP Major Transit Stop
Proposed RTP Transit Route Designations
Regional Bus
Frequent Bus
Rapid Bus
Figure 7-4
Future Transit
Service

Motor Vehicle Plan

CITY OF TIGARD
Transportation
System Plan

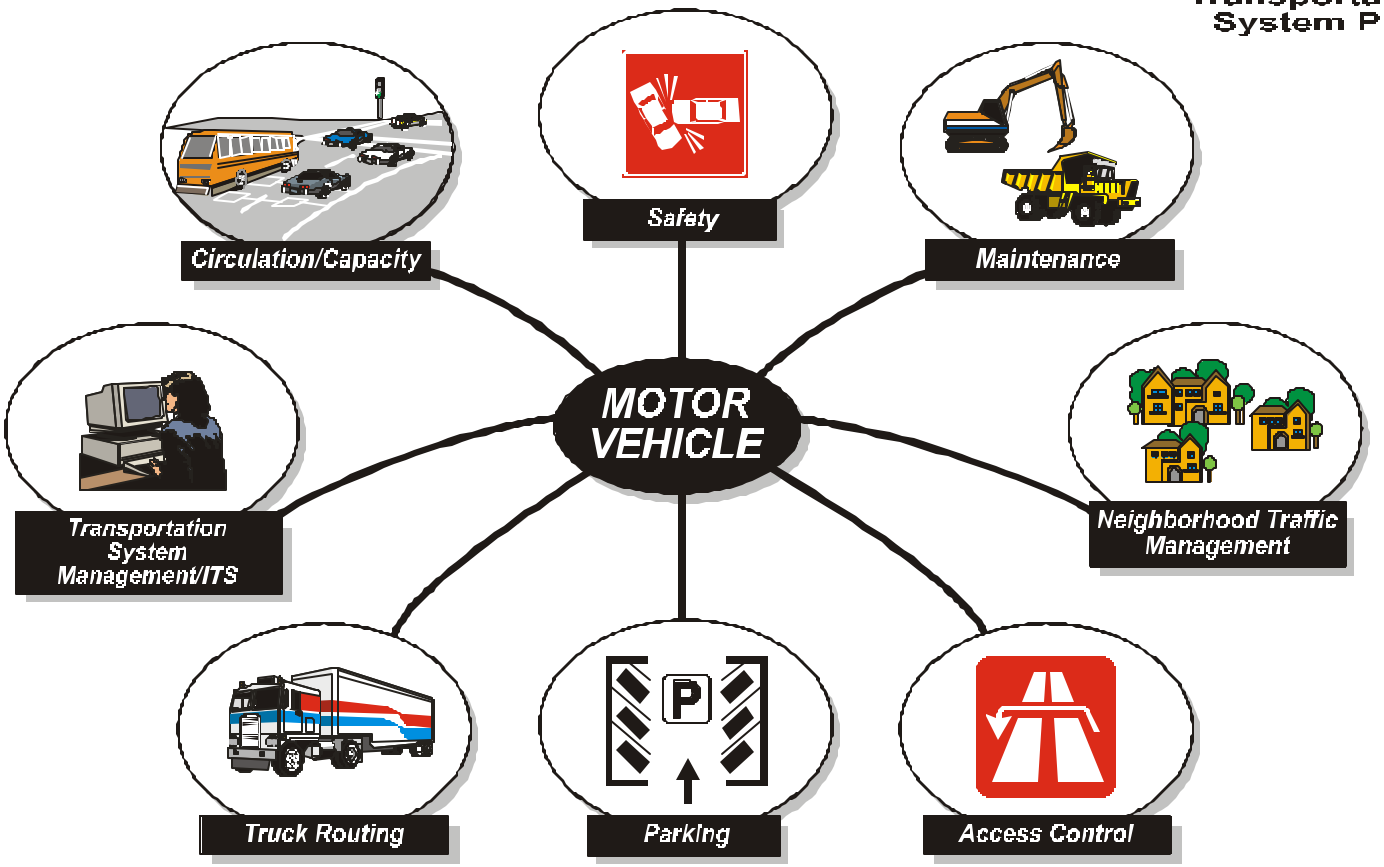
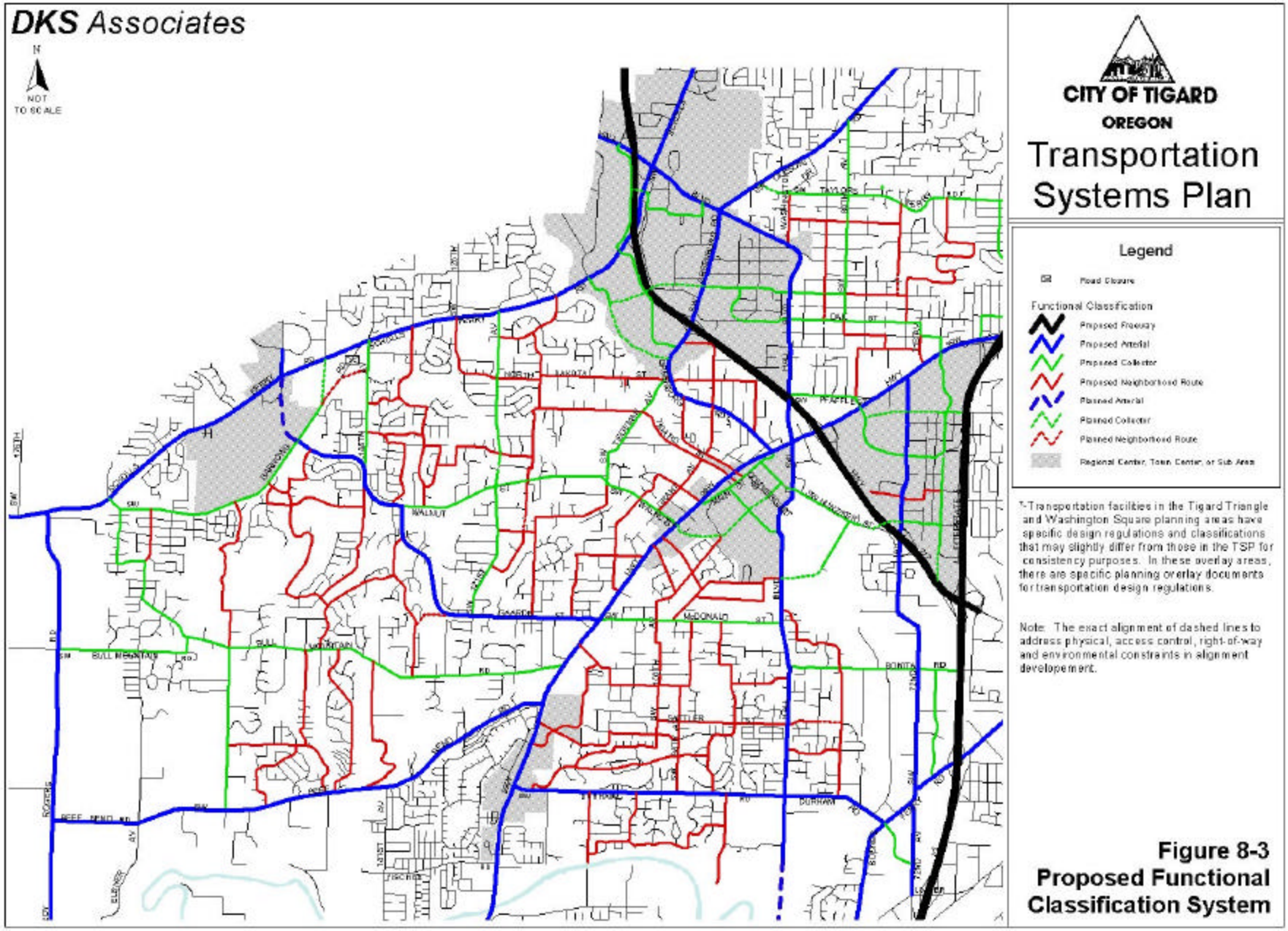


Figure 8-1
VEHICULAR ELEMENTS OF THE STREET PLAN

Functional Classification

CLASSIFICATION	EXAMPLE
• Freeways	• I-5/ORE 217
• Principal Arterials	• ORE 99W/Scholls
• Arterials	• Hall/Gaarde/Durham
• Collectors	• Walnut/Bull Mountain
• Neighborhood	• 130th/Watkins
• Local	• Cul-de-sacs/ redundant streets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Transportation Systems Plan
Legend
Road Closure
Functional Classification
Proposed Freeway
Proposed Arterial
Proposed Collector
Proposed Neighborhood Route
Planned Arterial
Planned Collector
Planned Neighborhood Route
Regional Center, Town Center, or Sub Area
1-Transportation facilities in the Tigard Triangle and Washington Square planning areas have specific design regulations and classifications that may slightly differ from those in the TSP for consistency purposes. In these overlay areas, there are specific planning or erlay documents for transportation design regulations.
Note: The exact alignment of dashed lines to address physical, access control, right-of-way and environmental constraints in alignment developement.
Figure 8-3
Proposed Functional Classification System

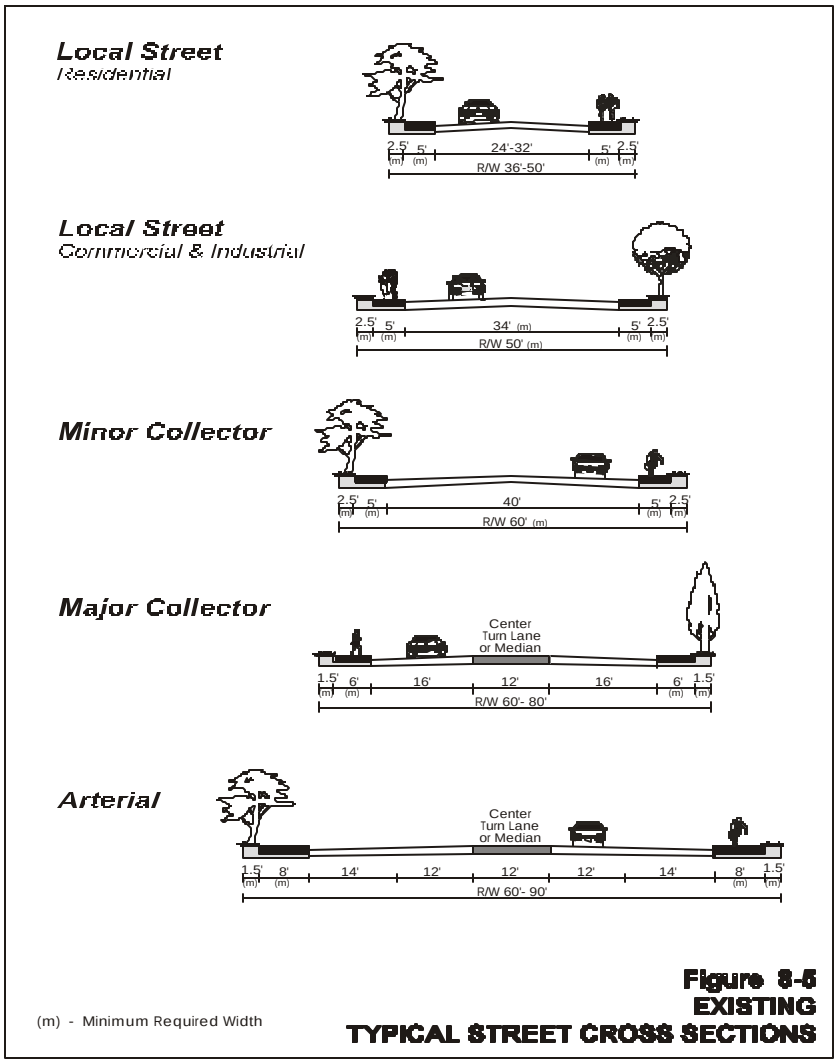

Figure 8-5
EXISTING
TYPICAL STREET CROSS SECTIONS

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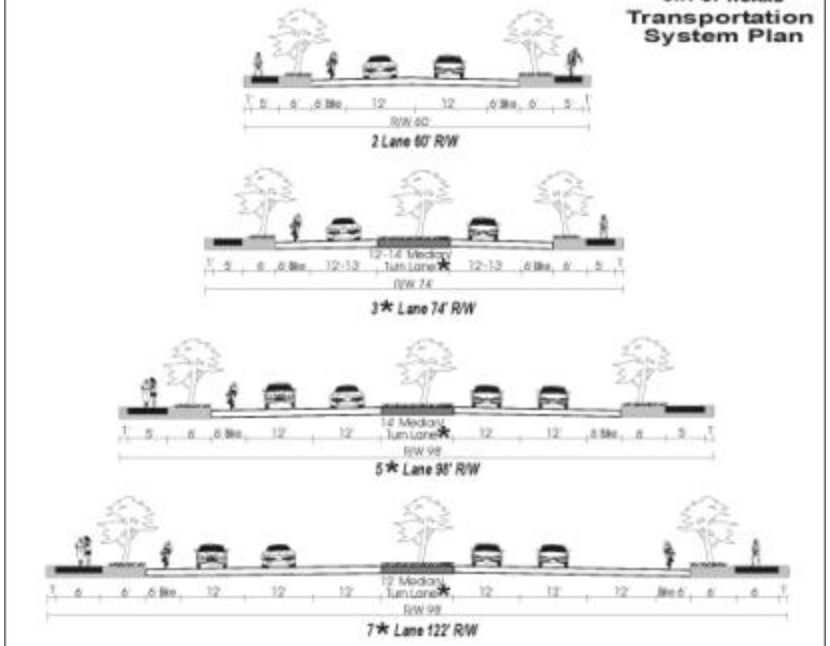
Transportation
System Plan

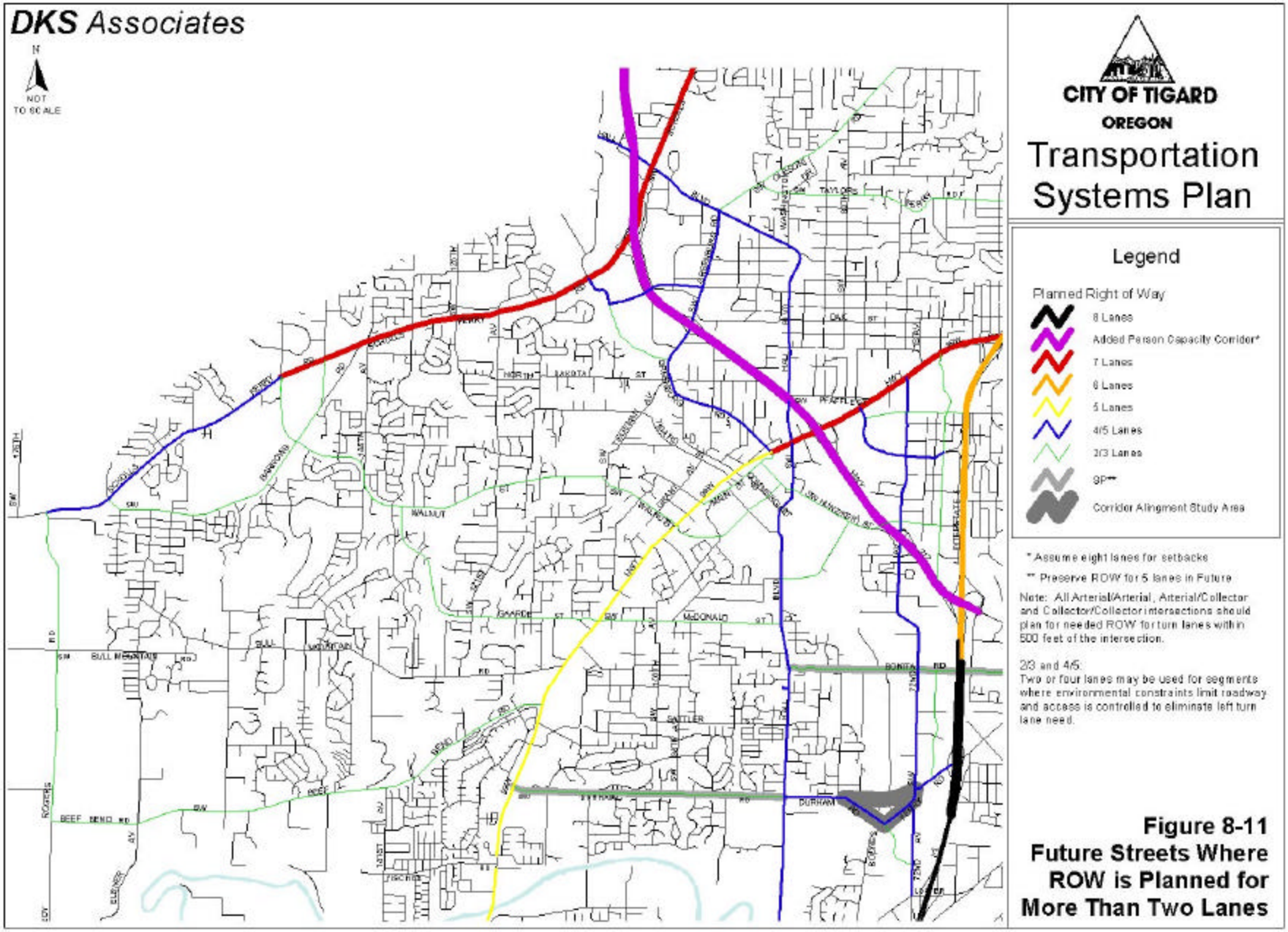


Criteria

Vehicle Lane Widths: (minimum widths)	Truck Route = 12 ft Bus Route = 12 ft 11 ft. (12 ft. Preferred)
Collector	10-11 ft.
On Street Parking:	None (with few existing exceptions)
Bicycle Lanes: (minimum widths)	New Construction = 6 ft. Reconstruction = 5 to 6 ft.
Sidewalks: (minimum width)	5-13 ft. Consider Curb Extensions on Ped Routes
Landscape Strips:	Required
Medians:	5/7 Lane = Required 3 Lane = Optional
Neighborhood Traffic Management:	Only Under Special Conditions: Selected Measures

★ Note that sidewalk widths above 6 ft. may require additional right-of-way. Where appropriate, the median/lane may not be provided resulting in 2,4 and 6 lane cross sections. The removal of the center turn lane must consider both safety and pedestrian needs.

Figure 8-10
ARTERIAL AND COLLECTOR
SAMPLE STREET CROSS SECTIONS
REQUIRED ROW WIDTH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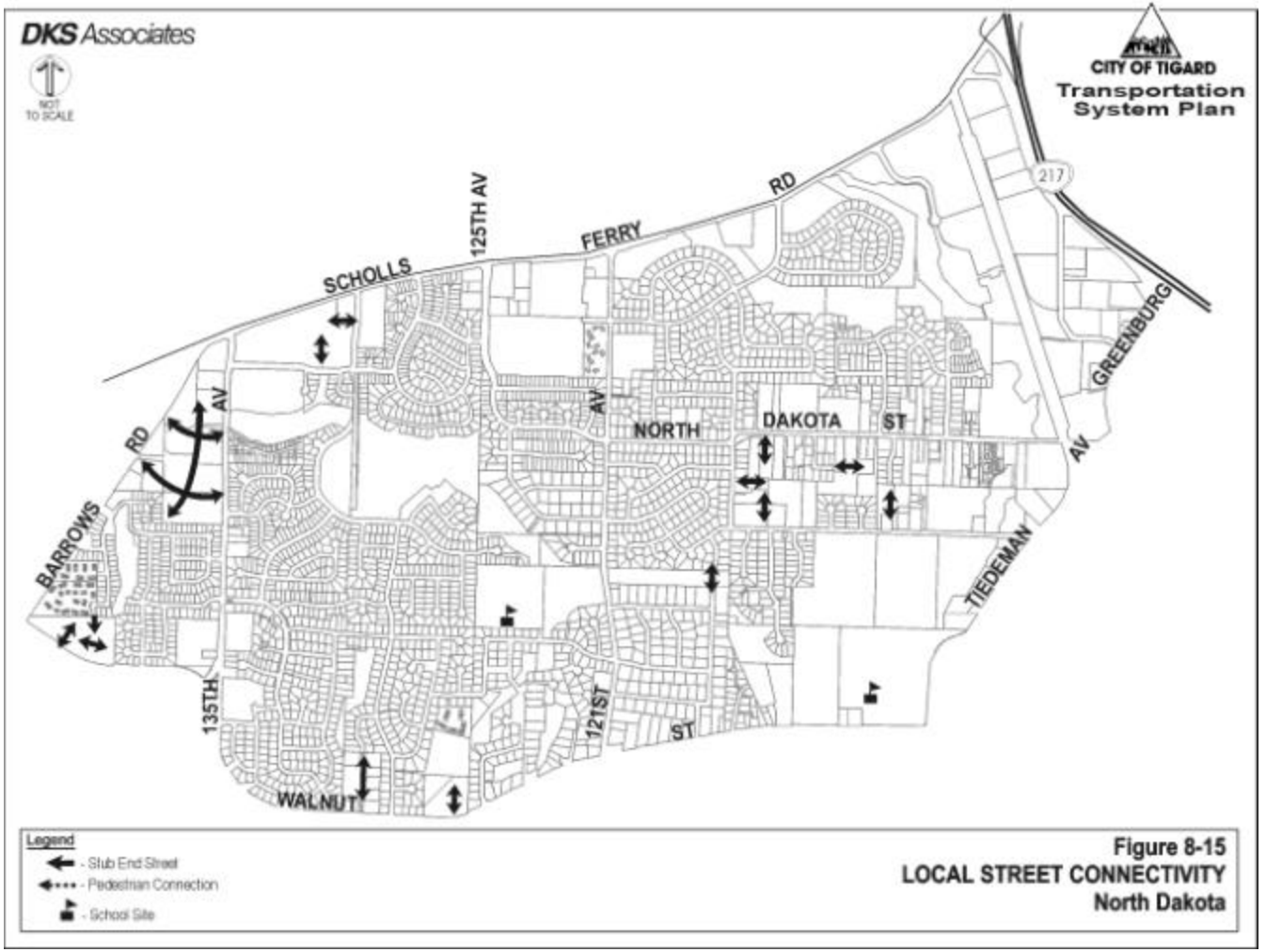
Transportation Systems Plan
Legend
Planned Right of Way
8 Lanes
Added Person Capacity Corridor*
7 Lanes
6 Lanes
5 Lanes
4/5 Lanes
2/3 Lanes
9P**
Corridor Alignment Study Area
* Assume eight lanes for setbacks
** Preserve ROW for 5 lanes in Future
Note: All Arterial/Arterial, Arterial/Collector and Collector/Collector intersections should plan for needed ROW for turn lanes within 500 feet of the intersection.
2/3 and 4/5:
Two or four lanes may be used for segments where environmental constraints limit roadway and access is controlled to eliminate left turn lane need.
Figure 8-11
Future Streets Where ROW is Planned for More Than Two Lanes

Local Connectivity Plans

North Dakota Example



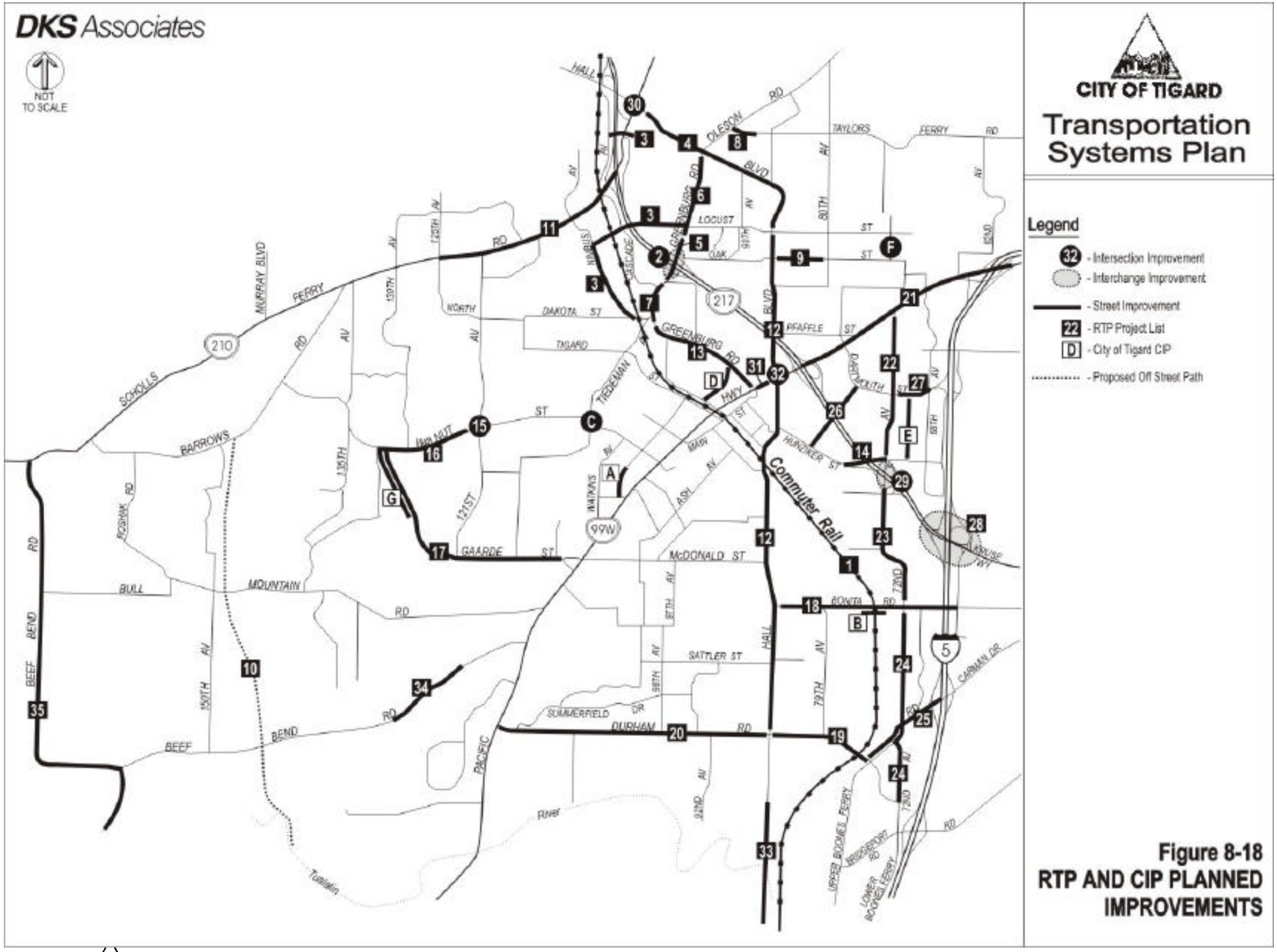
Capacity and Circulation

Key Issues

- **ORE 217 and I-5 are over capacity**
- **Tigard serves more ORE 99W through traffic in future**
- **ORE 99W fails in future**
- **Half of the traffic signalized intersection fail in 20 years assuming no improvements are made**

Key Solution Concepts for Tigard

- **Connectivity/Circulation Enhancement**
  - Washington Square
  - Tigard Triangle
  - Western Tigard
  - East/West
- **Traffic Operational Improvements**
  - Street Improvement Plan
  - Intersection capacity upgrades



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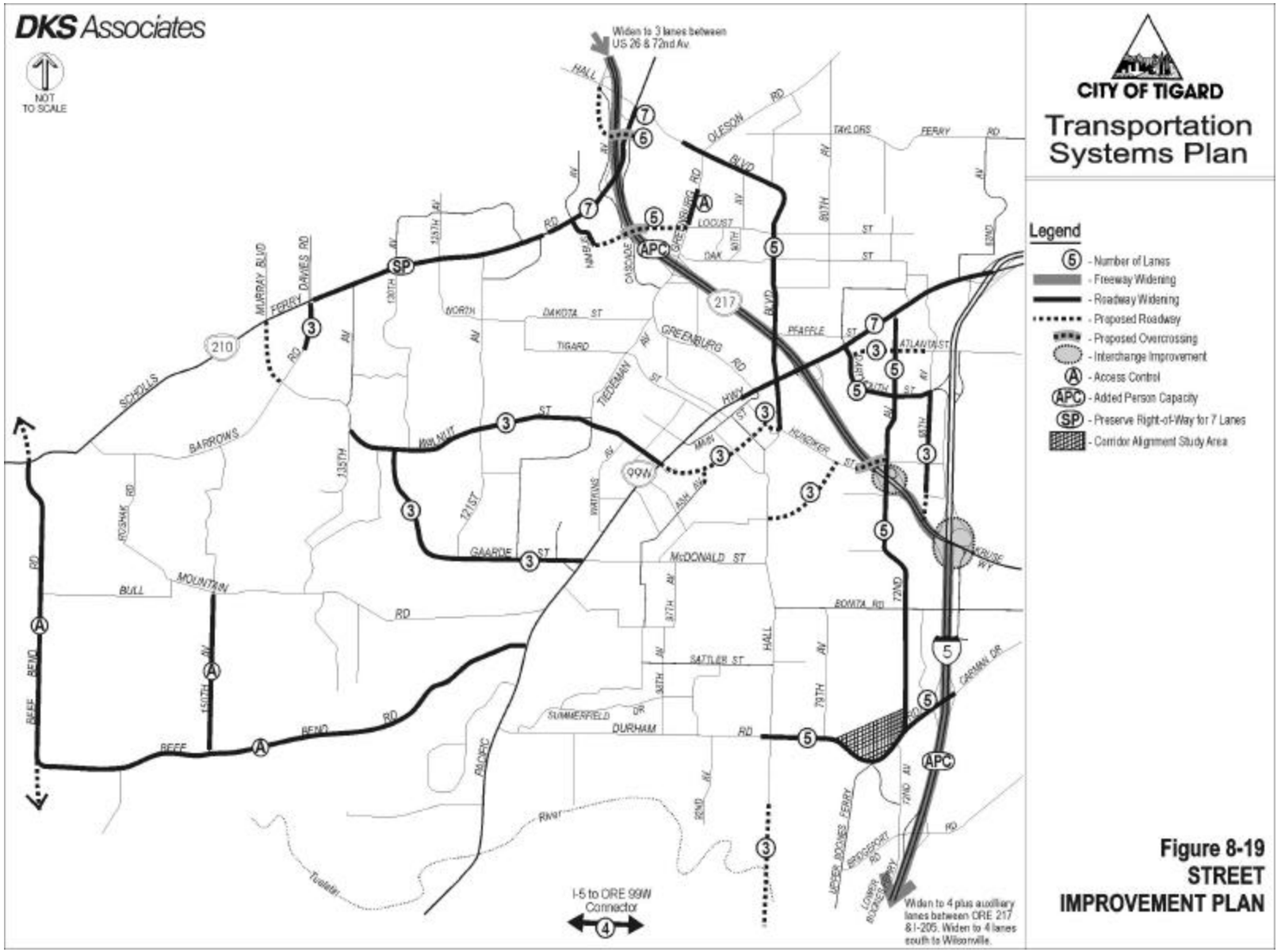

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Transportation System Plan

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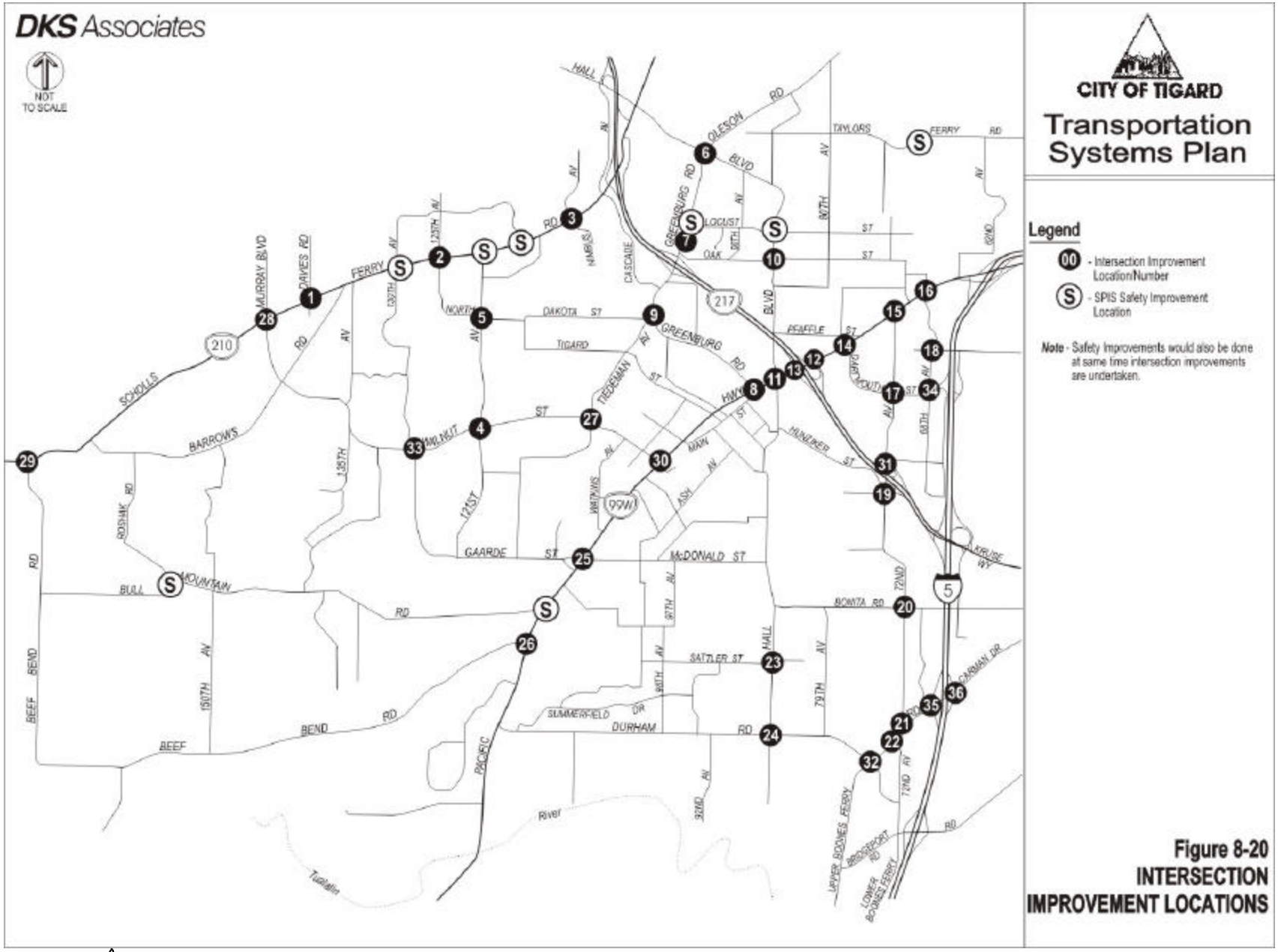

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Tigard
Transportation System Plan

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Recommendations in the following areas:

- **Traffic Signals**
  - Master Plan
  - Coordination
  - ITS
- **Safety**
  - Upgrade record keeping to focus on hot spots
- **Access Management**
  - ORE 99W
  - Beef Bend
  - 150th

More Motor Vehicle Recommendations

- **Maintenance**
  - Continue Pavement Management System
  - Fund program to get rid of pavement reconstruction backlog
- **Neighborhood Traffic Management (NTM)**
  - Continue current city program
  - Incorporate NTM into new land use/road approvals
- **Parking**
  - Metro Maximums already adopted into code
- **Intelligent Transportation Systems**

More Motor Vehicle Recommendations

- **Trucks**
  - Route map
  - Truck Friendly design
- **Key Implementation Items**
  - Access Spacing, Traffic Signal Spacing
  - Level of Service
  - Street spacing/local connections
  - Neighborhood Impact
  - School Access Impact
  - Mixed Use Determination

Other Modes in TSP

- **Rail**
- **Air**
- **Water**
- **Pipeline**
- **Freight**

TDM Plan

- **Coordinate with Regional ECO programs**
- **Encourage the development of high speed communication to residents and businesses**
- **Mixed uses**
- **Park-and-ride**

Preliminary Cost Summary

Modes	20 year Costs
Motor Vehicle: ODOT	$900 M
Motor Vehicle: City	$250 M
Maintenance	$45 M
Commuter Rail	$75 M
Bicycle	$25 M
Pedestrian	$13 M

Why are these estimates so large?

Motor Vehicle

- **Significant new roadway connections and widenings**
- **Major regional needs in the vicinity of Tigard**

Ped/Bike/Transit

- **Commuter Rail**
- **Significant right-of-way and topography to establish bike lanes and sidewalks**
- **Lack of on-going programs for sidewalks,TDM, Traffic Signals**

Potential Transportation Funding

- **Over 20 years current programs would only fund $250,000,000**
- **Substantial shortfall due to regional nature of improvements**
- **Key sources of future funds:**
  - Bond Measures (local, MSTIP, regional)
  - Increase existing fees commensurate with needs (SDC)
  - Focus on high priority needs
  - Exactions
  - Roadway pricing

Steps Taken So Far to Get Here

- **TSP Task Force Approved TSP**
  Spring 2000
- **Planning Commission Approved TSP**
  Winter 2000
- **CIT & Public Open Houses- Nov 2000**
- **City Council Workshops- Nov 2000, March 2001, November 2001**
- **City Council Adoption - Early 2002**

How Can Your Comments be heard?

- **Comment on specific details of the draft plan and provide recommendations**
- **Attend hearings**
- **Review report on the web (www.ci.tigard.or.us)**
- **Call (639-4171), write or email the City**
- **Julia Hajduk (julia@ci.tigard.or.us)**
- **Gus Duenas (gus@ci.tigard.or.us)**